CLAIMS

What is claimed is:

1. An electrochemical cell structure comprising:

a first conductive member having a first central area and a first peripheral area extending around said first central area, said first central area having a first set of openings for conducting a fluid through said first member;

a second conductive member having a second central area and a second peripheral area, said second central area having a second set of openings in fluid communication with said first set of openings;

said first conductive member having a volume on said first peripheral area and said second conductive member having a protrusion on said second peripheral area extending into said volume; and

a securing member between said volume and said protrusion.

2. The electrochemical cell structure of Claim 1 wherein said securing member comprises an adhesive for adhering said first conductive member to said second conductive member.

3. The electrochemical cell structure of Claim 2 wherein said adhesive comprises an adhesive tape having a liquid state and a solid state, said volume for receiving said adhesive tape in said liquid state.

4. The electrochemical cell structure of Claim 1 wherein said adhesive tape comprises an ethylene acrylic acid copolymer.

5. The electrochemical cell structure of Claim 1 wherein said volume extends around said first peripheral area.

6. The electrochemical cell structure of Claim 1 wherein said protrusion extends around said second peripheral area.

7. The electrochemical cell structure of Claim 6 wherein said protrusion extends only around a portion of said second peripheral area.

8. The electrochemical cell structure of Claim 1 wherein said first conductive member and said second conductive member generally comprise a cylinder having an axis.

9. The electrochemical cell structure of Claim 8 wherein said volume comprises a first volume and a second volume, said first volume spaced radially from said second volume relative to said axis.

10. The electrochemical cell structure of Claim 1 wherein said volume is sized larger than said protrusion.

11. An electrochemical cell comprising:

an anode;

a cathode;

an electrochemically conductive medium spaced between said anode and said cathode;

wherein at least one of said anode and said cathode comprises a first conductive member and a second conductive member, each of said conductive members having a central area surrounded by a peripheral area; and

an adhesive tape having a solid state and a liquid state, said adhesive tape having a predetermined size in said solid state smaller than said peripheral area.

12. The electrochemical cell of claim 11 wherein said first conductive member has a volume and said second conductive member has a protrusion extending into said volume.

13. The electrochemical cell of Claim 12 wherein said volume receives said adhesive tape in said liquid state.

14. The electrochemical cell of Claim 12 wherein said volume comprises a channel extending along said peripheral area.

15. The electrochemical cell of Claim 12 wherein said first conducting member has a first set of openings and said second conducting member has a second set of openings, said first set of openings in fluid communication with said second set of openings.

16. A method of manufacturing an electrochemical cell structure comprising the steps of:

a) spacing a first conductive member relative to a second conductive member;

b) arranging an adhesive between the first conductive member and the second conductive member, the adhesive having a solid state and a liquid state; and

c) liquefying the adhesive to form a seal between the first conductive member and the second conductive member.

17. The method of Claim 16 including the step of:

d) providing a volume to receive the adhesive in the liquid state on the first conductive member.

18. The method of Claim 17 wherein forming the volume comprises etching the volume.

19. The method of Claim 17 including the step of:

e) providing a protrusion on the second conductive member and placing the protrusion in the volume.

20. The method of Claim 16 wherein step b) comprises applying pressure to sandwich the adhesive between the first conductive member and the second conductive member.